

WHAT IS CLAIMED IS:

Sub A1
5 1. A polyurethane elastomer prepared from a composition comprising

- 10 a) at least one higher molecular weight polyhydroxyl compound having an average molecular weight of from 500 to 6,000 and a functionality of at least 2,
- b) 2,3,5,6-tetramethyl-1,4-diisocyanatobenzene and
- 15 c) at least one low molecular weight chain-lengthening and/or crosslinking agent having at least two hydroxyl groups and an average molecular weight of from 18 to 800.

2. A process for the production of the polyurethane elastomer of Claim 1 in which the higher molecular weight polyhydroxyl compound a) is first reacted with the diisocyanate b) to produce an isocyanate-terminated prepolymer and the prepolymer is then reacted with the chain-lengthening and/or crosslinking agents and/or higher molecular weight polyhydroxy compounds.

3. The process of Claim 2 in which a chain lengthening agent and/or crosslinking agent c) is present during production of the prepolymer.

4. A shaped article capable of withstanding high mechanical stress produced from the polyurethane elastomer of Claim 1.

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B2

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C5

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